AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph **[0008]** with the following amended paragraph:

[0008] On the other hand, conventional fovea lenses are composed of 7 to 11 lens elements, and thus have a large-scale optical system. Moreover, all those lens elements are glass lens elements, resulting in high costs. Moreover, they suffer from large residual aberrations and thus unsatisfactory imaging characteristics. For these reasons, conventional fovea lenses are unsuitable for achieving high image quality, compactness, and low costs. Moreover, they all have an f-number as [[slow]] <u>low</u> as f4, and it is difficult to give them large apertures.

Please replace paragraph **[0022]** with the following amended paragraph:

[0022] The camera DC (Fig. 23) is provided with, along with the image-taking apparatus UT, an image processing circuit FA or the like. The image processing circuit FA is a circuit that corrects the distortion of the image formed on the light-receiving surface SS of the image sensor SR. It is easy to know the distortion characteristics (Fig. 19) of the taking lens system SL described above, and therefore, by inversely converting the distortion, it is possible to correct the distortion produced by the taking lens system SL and thereby convert the distorted image into a largely distortionless image. This is achieved, for example, by mapping, through appropriate calculations, the pixel positions on the shot image to the corresponding pixel positions on a distortionless image. Since the image is compressed in a peripheral portion thereof, inverse conversion is beset with shortage of information. It is, however, possible to interpolate the image by one of the various known image interpolation methods (such as nearest-neighbor interpolation or bicubic interpolation). The factor of compression by which the taking lens system compresses the image in a peripheral portion thereof is higher than in conventional projection methods, and thus, as described above, the taking lens system has low resolution in a peripheral

portion of the image. From a different perspective, this means that the total amount of information that needs to be handled is small. As a result, while conventionally it is difficult to correct distortion on a real-time basis because of an unsatisfactory processing speed, with the optical construction according to the present invention it is possible to quicken the processing speed and thereby improve the frame rate of the moving picture. Moreover, through image processing, including distortion correction, resolution conversion, and other processing, performed by the image processing circuit FA, the image distorted with distortion can be corrected to a natural image without [[no]] apparent distortion which is similar to the scene perceived by the human eye. Here, the image processing, including distortion correction, resolution conversion, and other processing, may be performed by an image processing apparatus FC (Fig. 24) that is externally fitted to the camera DC. The image processing apparatus FC is a dedicated processor composed of circuits that executes a predetermined procedure, or an apparatus that executes a predetermined procedure as a software program is run on it. Figs. 20A and 20B show an example of images before and after correction of distortion. Fig. 20A shows an image 51 before correction of distortion (i.e., the shot image), and Fig. 20B shows an image 52 after correction of distortion (i.e., the distortion-corrected image).

Please replace paragraph **[0057]** with the following amended paragraph:

[0057] If the upper limit of condition (7) is disregarded, it is difficult to achieve a long focal length in the image center region while maintaining a wide angle of view. If the lower limit of condition (7) is disregarded, either the front or rear lens unit has a negative optical power. If the front lens unit has a negative optical power, it is difficult to correct astigmatism and coma ascribable to asymmetry. If the rear lens unit has a negative optical power, the rays incident on the image sensor make large angles with the optical axis. This [[cases]] <u>causes</u> vignetting of rays at the opening restricting the light-receiving surface of the image sensor or in the lens array disposed immediately in front of the image sensor, and thus causes low brightness in the periphery. If the upper limit of condition (8) is

disregarded, the optical power of the front lens unit is too weak. This makes it difficult to correct off-axial aberration, in particular coma. If the lower limit of condition (8) is disregarded, the optical power of the front lens unit is so strong that off-axial aberrations are overcorrected. Under either condition, degraded performance results.